ON CERTAIN NOMENCLATURAL ERRORS IN THE EUPHORBIACEAE

E. D. MERRILL

IN 1942 Doctor Croizat [1] definitely demonstrated that the currently used euphorbiaceous generic name *Gelonium* Roxb. (1805), non Gaertn. (1791), was not only invalid, but that it was antedated by the validly published *Suregada* Rottl. Gesellsch. Naturf. Freunde Neue Schrift. 4: 206. 1803. I can only agree with him in this conclusion, for certainly there is nothing to be gained by conserving *Gelonium* Roxb., non Gaertn. against the earlier *Suregada* Rottl. As a matter of fact at the time the genus *Gelonium* was last monographed, eleven of the nineteen species recognized by Pax & Hoffmann [2] had already been placed in *Suregada* by Baillon and others, so it was apparently due to some oversight on their part that they continued to maintain *Gelonium* Roxb. as the proper generic name for the group.

Croizat published twenty-nine transfers, and if all the named and described forms proposed since 1912 prove to be valid, which is definitely not the case, then the total for *Gelonium* Roxb. = *Suregada* Rottl. would now be about forty species. Among these Croizat transfers were the names of seven species originally described by Pax and Hoffmann in 1912, and twenty-two by such authors as Elmer, Gagnepain, Hoyle, Merrill, S. Moore, Prain, and Ridley published since the Pax and Hoffmann monograph was issued. In other words, even if not quite all of the species proposed since 1912 prove to be distinct and valid, the genus has been more than doubled in size in less than forty years.

At the end of his discussion Croizat stated that he intended to prepare a critical revision of the group at a later date, but there is no evidence that any further work was done on the rather ample collections at the Arnold Arboretum after his hurriedly prepared paper of 1942 was finished; the manuscript must have been completed and forwarded sometime before the end of 1941, but no copies of the printed document became available until 1948. Perhaps this explains why Croizat did no more work on the group. It is evident that without even casually examining the specimens which were available to him, and without scanning the original descriptions of all the species proposed after 1912, Croizat accepted each name on its face value and made the transfers without discussing the individual cases. In three cases the descriptions appertain to non-euphorbiaceous species, and not only had two of these three fugitive *Gelonium* species been

[1] CROIZAT, L. Notes on the Euphorbiaceae. Bull. Jard. Bot. Buitenz. III. 17: 209–219. 1942 (p. 212, The Reinstatement of Suregada).

[2] PAX, F. & HOFFMANN, K. Euphorbiaceae-Gelonieae. Pflanzenreich 52(IV. 147. IV): 1–41. 1912.

placed in the genera where they manifestly belong, in actual publication as of 1923, but the actual type numbers of all three were before him when he prepared his manuscript. This is perhaps a good illustration of how original errors are perpetuated when a "new species" is proposed and characterized but placed not only in the wrong genus, but in the wrong family.

Two of Croizat's *Suregada* names belong in the violaceous genus *Rinorea,* and the third one in the flacourtiaceous genus *Casearia.* One has only to scan the descriptions of the floral details to realize at once that, if the data published by Elmer were only in part correct, no *Gelonium* could possibly be represented by any of the three descriptions, and at least in one case no representative of a euphorbiaceous genus. Moreover, perhaps as an indication of the speed with which his nomenclatural paper was written, Croizat curiously overlooked the fact that in 1914, Pax and Hoffmann, op. cit. 63(IV. 147. VII): 414, on the basis of an examination of the type collections, had disposed of five of Croizat's *Suregada* species.

Gelonium meliocarpum Elm. = *Suregada meliocarpa* Croizat = *Gelonium glomerulatum* Hassk. = *Suregada glomerulata* (Blume) Baill.; *Gelonium subglomerulatum* Elm. = *Suregada subglomerulata* Croizat = *Gelonium glomerulatum* Hassk. = *Suregada glomerulata* (Blume) Baill.; and *Gelonium pulgarense* Elm. = *Suregada pulgarense* Croizat = *?Gelonium glomerulatum* Hassk. = *Suregada glomerulata* (Blume) Baill. These reductions I accepted in 1923 (Enum. Philip. Fl. Pl. 2: 456), but I still have an open mind as to whether or not all of the Pax and Hoffmann reductions are correct. At the same time, I had, perhaps erroneously, reduced *Gelonium mindanaense* Elm. = *Suregada mindanaensis* Croizat, to *Gelonium philippinense* Pax & Hoffm. = *Suregada philippinensis* Croizat, although Pax and Hoffmann in 1919 recognized it as distinct. Furthermore they expressed doubt if *Gelonium tenuifolium* Ridl. = *Suregada tenuifolia* Croizat belongs in the genus because of the indicated aberrent style characters, and op. cit. 68(IV. 174. XIV): 52. 1919, suggest that *Gelonium procerum* Prain = *Suregada procera* Croizat is but a variety of *Gelonium lithoxylon* Pax & Hoffm. = *Suregada lithoxyla* Croizat.

As to the three non-euphorbiaceous species that Elmer erroneously placed in *Gelonium,* and which Croizat erroneously perpetuated in *Suregada,* Pax and Hoffmann, Pflanzenreich 63(IV. 147. VII): 414. 1914, correctly excluded two of them from the genus but made no suggestions as to what groups might be represented. For *Gelonium glandulosum* Elm. = *Suregada glandulosa* Croizat = **Rinorea glandulosa** (Elm.) Merr. (type *Elmer 12315,* Sibuyan Island) they said: "Certissime non ad genus pertinet," and for *Gelonium trifidum* Elm. (type *Elmer 12143,* Sibuyan Island) = *Suregada trifida* Croizat = **Rinorea fasciculata** (Turcz.) Merr. they also said, correctly: "Non ad *Gelonium* pertinens et cum antecedente congenericum." I disposed of these two species, Enum. Philip. Fl. Pl. 3: 104. 1923, one as the basis of *Rinorea glandulosa* (Elm.) Merr., the other as a synonym of *Rinorea fasciculata* (Turcz.) Merr. (*Pentaloba*

fasciculata Turcz., *Alsodeia fasciculata* F.-Vill.), of the Violaceae. While I have a mental reservation to the effect that a critical revision of *Rinorea* may lead to some change of status here, yet in both cases the natural group indicated is definitely the correct one.

The last case is perhaps even more strange than those just discussed. *Gelonium pinatubense* Elm. Leafl. Philip. Bot. 9: 3186. 1934, based on *Elmer 22032, 21966*, from the eastern or Pampangan slopes of Mount Pinatubo, Luzon = *Suregada pinatubaensis* Croizat = **Casearia trivalvis** (Blanco) Merr., 1918 (*Samyda trivalvis* Blanco, 1837; *Casearia solida* Merr., 1905; *Casearia zschokkei* Elm., 1919). Here Croizat had borrowed the Gray Herbarium sheets for his preliminary work. A mere glance at these shows that no *Gelonium* could possibly be represented. I now have had the opportunity of examining another set of the two *Elmer* numbers. While no mature flowers are available (very young buds only), and somewhat immature fruits, the genus represented is definitely *Casearia* of the Flacourtiaceae, and this in spite of Elmer's confused description of certain floral parts. He apparently misinterpreted the staminodes, for his description of the filaments reads: "subtended by ciliate linear bracts and alternating with the subclavate ciliate appendages," characters utterly foreign to *Gelonium* no matter how stated, but sufficiently understandable in *Casearia* even if no duplicate types were available. Incidentally it seems to be evident that Elmer's indicated measurement of the perianth segments (sepals) as being up to 1 cm. in length, is also erroneous.

ARNOLD ARBORETUM,
HARVARD UNIVERSITY.